REMARKS

Claims 14 – 22 stand rejected under 35 U.S.C. §102(b) as being anticipated by Abe et al. Applicant, however, respectfully traverses. As stated during earlier prosecution, and most recently stated in Applicant's Appeal Brief received by the Patent Office on April 1, 2002, Abe et al. does not disclose porous inorganic oxides having a pore volume in the range of 0.6 – 3.0 cc/g. As mentioned in Applicant's earlier Appeal Brief, Abe et al. discloses colloidal silica, and it is respectfully submitted that those of ordinary skill in the art would generally recognize that colloidal silica is generally not porous.

An example of the generally accepted definition of colloidal silica can be seen in the teachings of Alexander et al. (U.S. Patent No. 3,007,878). Alexander et al. is replete with reference to colloidal silica as being very dense and not porous, such that nitrogen adsorption within the particles is negligible (see column 1, line 38; column 2, lines 23, 41 and 67; and column 3, lines 12 and 20).

Inherent anticipation requires that the missing descriptive material is "necessarily present," not merely probably or possibly present in the prior art. *Trinteo Industries v. Top U.S.A. Corp.*, 295 F.3d 1292, 1295, 63 USPQ2d 1597, 1599 (Fed. Cir. 2002) quoting *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999).

Additionally, facts asserted to be inherent in the prior art must be shown by evidence from the prior art. *Elan Pharmaceuticals, Inc. v. Mayo Foundation for Medical Education and Research*, 304 F.3d 1221, USPQ2d 1292 (Fed. Cir. 2001). *In re Dembiczak*, 175 F.3d 994, 999, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999) (criticizing the "hindsight syndrome wherein that which only the inventor taught is used against its teacher").

In the present Office Action, there has been no reference to the prior art, or otherwise, of information demonstrating that the pore volume recited in the present claims is "necessarily present" in Abe et al. (see page 3, lines 2-6). In fact, the reference made to cation-modification of colloidal silica as set forth in Alexander et al. (page 3, lines 7-11 of the Office Action) suggests that the colloidal silica of Abe et al. is similar to or identical to the typical and accepted definition of colloidal silica, i.e., that it is quite dense. Accordingly, the artisan would readily recognize that the colloidal silica of Abe et al. does not "necessarily" possess the pore volume recited in the present claims, and in contrast, even demonstrates that it does not possess any significant porosity.

Applicant's reference to Alexander et al., on page 14 of the subject specification, goes no further in showing that Abe et al. anticipates Applicant's invention. Applicant refers to Alexander et al. because he can use the techniques described therein to modify his inorganic oxide (see page 14, lines 14-21) where it refers to treatment of silica hydrogel (not colloidal) with alumina. Applicant, however, goes beyond Alexander et al. by applying the techniques to porous inorganic oxides. It is also respectfully submitted that it is not seen where Abe et al. discloses a non-ionic latex. Accordingly, it is submitted that the subject matter of claims 14 – 22 is not inherently disclosed by Abe et al., and Applicant respectfully requests withdrawal of the §102 rejection.

Claims 1 – 3, 5 – 8, and 13 stand rejected under 35 U.S.C. §103 as being unpatentable over Stokes et al. in view of Alexander et al. Applicant respectfully traverses. Briefly, it is respectfully submitted that Stokes does not expressly describe nor suggest non-ionic latexes. Mere mention of a polyvinyl acetate latex does not describe or suggest such a latex, especially in view of evidence (Rohm and Haas literature) submitted by Applicant in the March 19, 2001 Request for Reconsideration. Applicant has already submitted literature showing a variety of polyvinyl acetate latex polymers, of which only a portion are non-ionic. On page 3 of the Office Action, it is suggested that the term "polyvinyl acetate" suggests a certain chemical structure. Applicant submits that this in error. Stokes fails to describe any specific structures with respect to polyvinyl acetate latex and is completely silent regarding the advantages of ionic or non-ionic polymers. It is, therefore, respectfully submitted that one of ordinary skill in the art would consider polyvinyl acetate as generic without limitation to charge and that any charge could be applicable to a "polyvinyl acetate" latex. As mentioned in Applicant's previous Amendment dated October 9, 2002, the Encyclopedia of Chemical Technology, 4th ed., 1997, describes various polyvinyl acetate emulsions, i.e., latexes. It is known to the person of ordinary skill that the charge of a latex depends on surfactant or emulsifier used. It is stated therein that the most commonly used surfactants are anionic surfactants, e.g., anionic sulfates and sulfonates, in addition to cationic or non-ionic surfactants. It is submitted that this standard reference along with the Rohm and Haas literature, is more than ample evidence to support Applicant's position. On the other hand, the Examiner has not presented any evidence to support the position that one of ordinary skill would be motivated to specifically select a non-ionic latex. Regardless, Applicant

has also submitted tests and examples rebutting any *prima facie* case of obviousness by showing that the latex charge is an important factor in Applicant's formulation vis-à-vis printing properties of the resulting coating (see page 31, lines 4-13, of the subject specification). Such advantages are simply not suggested by Stokes et al.

It is also respectfully submitted that Stokes et al. does not disclose cationic porous inorganic oxide particles, and given that Alexander et al. discloses employing cationic colloidal silica, it is respectfully submitted that if Alexander et al.'s teaching is combined with Stokes et al.'s teaching, one of ordinary skill in the art would arrive at a coating formulation containing non-porous particles. There is simply no motivation or teaching in Stokes et al. or Alexander et al. to modify their teachings and utilize cationic non-porous particles in such formulation as is recited in the present claims. Moreover, even if Alexander et al. was combined with Stokes et al., as teaching the use of cationic non-porous particles, this would result in impermissible hindsight reconstruction since Alexander emphasizes the use of cationic non-porous particles.

Accordingly, Applicant respectfully requests withdrawal of the §103 rejection based on Stokes and Alexander et al.

Claims 10 – 12 stand rejected under 35 U.S.C. §103(a) as being unpatentable over the aforementioned combination of Stokes and Alexander, further in view of Williams et al. Applicant, however, respectfully traverses. Williams et al. has been cited in this rejection for its disclosure of a coating composition containing a quaternary ammonium compound. However, it is respectfully submitted that even if Williams et al.'s teachings are combined with the aforementioned combination of Stokes and Alexander et al., it is respectfully submitted that one of ordinary skill in the art would not have arrived at a coating composition comprising porous particles. As remarked above, Alexander et al. discloses colloidal particles. It is respectfully submitted that those of ordinary skill in the art would generally recognize those particles as being non-porous. Thus, Applicant respectfully requests withdrawal of the §103 rejection of claims 10 – 12.

Claim 4 stands rejected under 35 U.S.C. §103(a) as being unpatentable over the above-mentioned combination of Stokes et al. in view of Alexander et al., further in view of Vassiliades et al. Applicant, however, respectfully traverses. Vassiliades et al has been cited for its disclosure of microcapsules comprising polymeric shell of polyvinyl alcohol encapsulating a polymeric core. Vassiliades

et al. does not rectify the deficiencies of Stokes et al. and Alexander et al. Thus, for the same reasons as set forth above, the combination of Vassiliades et al. with Stokes et al. are Alexander et al. would not render the claims of the present invention obvious.

It is respectfully submitted that one of ordinary skill in the art would not have arrived at Applicant's coating composition comprising porous particles. Applicant respectfully requests withdrawal of this rejection.

Claims 1 – 3, 5 – 8, 10, 13, and 23 – 30 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Abe et al. Applicant, however, respectfully traverses. Applicant earlier indicated above that Abe et al. refers to colloidal particles and does not even remotely suggest or mention pore volume. Applicant has submitted evidence that those skilled in the art recognize such materials as being non-porous. There is simply no motivation or suggestion to utilize cationic porous particles. On page 5, section 6, the Office Action suggests that the silica in Abe et al. has the same composition and structure as recited in the present claims. One of ordinary skill in the art would readily recognize that just because a silica particle comprises the same or similar composition, it does not necessarily mean that the structure is also the same or similar. It is therefore respectfully submitted that the position asserted in the Office Action is incorrect in stating that the pore volume of Abe et al.'s silica must have the pore volume recited in Applicant's claims 1 – 3, 5 – 8, 10, and 13. It is also respectfully submitted that Applicant has not pointed to any disclosure in Abe et al.'s patent, or any other disclosure or premise, which motivates one of ordinary skill in the art to determine optimum solids content, volume fraction, and weight ratio of non-ionic latex to modify inorganic oxides. Insofar as the Examiner is relying on personal knowledge, Applicant respectfully requests the Examiner submit the appropriate declaration in support of that position. Accordingly, Applicant respectfully requests withdrawal of the above-mentioned §103 rejection based on Abe et al.

Claims 4 and 9 stand rejected under §103 as being unpatentable over Abe et al. in view of the earlier discussed Vassiliades patent. However, Applicant respectfully traverses for reasons discussed above. Briefly, Vassiliades et al. has been cited for its disclosure of microcapsules. However, Abe et al. fails to disclose porous particles and a non-ionic latex recited in claims 4 and 9, and Applicant respectfully submits that even if one of ordinary skill in the art were to combine Vassiliades disclosure with Abe et al.'s disclosure, one would not arrive

at Applicant's invention. Accordingly, Applicant respectfully requests withdrawal of the §103 rejection based on Abe et al. in view of Vassiliades et al.

The examiner bears the burden of establishing a *prima facie* case of obviousness, *In re Deuel*, 51 F.3d 1552, 34 USPQ2d 1210 (Fed. Cir. 1995), *In re Rijckaert, 9*: F.3d 1531, 1532, 28 USPQ2d 1955, 1956 (Fed. Cir. 1993); *In re Oetiker,* 977 F.2d 1443, 1445, 24 USPQ 2d 1443, 1444 (Fed. Cir. 1992). Only if this burden is met does the burden of coming forward with rebuttal argument or evidence shift to the applicant. *Rijckaert,* 9 F.3d at 1532, 28 USPQ2d at 1956. When the references cited by the examiner fail to establish a *prima facie* case of obviousness, the rejection is improper and will be overturned. *In re Fine,* 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988).

The combination of elements in a manner that reconstructs the applicant's invention only with the benefit of hindsight, is insufficient to present a *prima facie* case of obviousness. There must be some reason, suggestion, or motivation found in the prior art whereby a person of ordinary skill in the field of the invention would make the combination. That knowledge can not come from the applicant's invention itself. *Diversitech Corp v. Century Steps, Inc.,* 850 F.2d 675. 678-79, 7 USPQ2d 1315, 1318 (Fed. Cir. 1988); *In re Geiger,* 815 F.2d 686, 687, 2 USPQ2d 1276, 1278 (Fed. Cir. 1987); *Interconnect Planning Corp. v. Feil,* 774 F.2d 1132, 1147, 227 USPQ 543,551 (Fed. Cir. 1985).

If examination at the initial stage does not produce a *prima facie* case of unpatentability, then without more the applicant is entitled to grant of the patent. See *In re Grabiak,* 769 F.2d 729, 733, 226 USPQ 870, 873 (Fed. Cir. 1985).

In the matter at hand, Applicant respectfully submits that the Office Action has set forth assertions based on assumptions unsupported by the references of record to supplement silences in the prior art. Moreover, there has been no suggestion or motivation set forth in the Office Action that would lead one of ordinary skill in the art to the claimed invention. Rejections based on this type of analysis are impermissible and withdrawal of those rejections are respectfully requested. Indeed, Applicant respectfully requests notification to that effect in the form of a Notice of Allowability.

Respectfully submitted,

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